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Powell, R., R.W. Henderson, and R.S. Thorpe. 2010. *Sphaerodactylus phyzacinus.*

Sphaerodactylus phyzacinus Thomas
Les Saintes Dwarf Gecko

Sphaerodactylus fantasticus phyzacinus Thomas 1964:382. Type-locality, "Ilet à Cabrit, Iles des Saintes." Holotype, Museum of Comparative Zoology (MCZ) 77114, an adult female collected on 15 February 1963 by A. Schwartz and R. Thomas (not examined by authors).

Sphaerodactylus phyzacinus: Thorpe et al. 2008: 1489.

• **CONTENT**. *Sphaerodactylus phyzacinus* is monotypic.

• **DEFINITION**. *Sphaerodactylus phyzacinus* is a relatively small dwarf gecko (male and female SVL to 25 mm) with moderately large, obtuse to round, keeled, and slightly imbricate dorsal scales, 27–33 (26.6 ± 1.6) from axilla to groin, and a middorsal area of 2 or 3 rows of granular scales. Dorsal scales have both knoblike and hair-bearing scale organs. Ventrals are acute to round, keeled in the gular region or slightly beyond, imbricate, and number 25–36 from axilla to groin. Scale rows at midbody number 44–52 in males and 45–56 in females. Dorsal caudal scales are keeled, flat, and imbricate. Snout scales are flat, weakly keeled, and juxtaposed. Other head scales include 2 postnasals, 3.4–4.0 internasals in contact with the rostral in males and 4.4–5.4 in females (means on different islets), and 3 upper labials to mid-eye. The escutcheon is 3.4–4.0 x 22.4–24.8 (islet means). Mean number of fourth-toe lamellae is 8.8–9.2 (Thomas 1964; Jones 1999).

The pattern is sexually dichromatic (Thomas 1964). Head coloration of males is distinct from that of the body and consists of vermiculations of black to gray, the extent of which is variable. Most males have a distinct white occipital spot. Dorsal ground color is yellowish brown to brown. A peppering of darker brown scales gives a speckled effect to some individuals, whereas others have dark scales arranged to form oblique bars on the flanks. Throats are vermiculated or marbled with light gray to buff and black. Heads of females have a faint cephalic pattern heavily invaded by ground color. The gular region is bright yellow and the pattern is weakly developed. Ventral ground color is weak yellowish. Intact tails have an ocellate pattern in most males and all females.

• **DIAGNOSIS**. The elevation of *Sphaerodactylus phyzacinus* from subspecific status within the *S. fantasticus* complex was based largely on extraordinarily high (27.4%) divergence in mtDNA (Thorpe et al. 2008). However, mtDNA divergence is generally not accepted as the sole basis for species recognition. Although no single morphological trait distinguishes



FIGURE 1. Adult male (top) and female *Sphaerodactlylus phyzacinus* from Terre de Haut, Îles des Saintes. Photographs © Anita Malhotra (from Malhotra and Thorpe 1999).

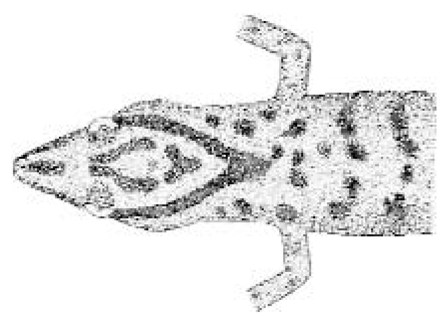
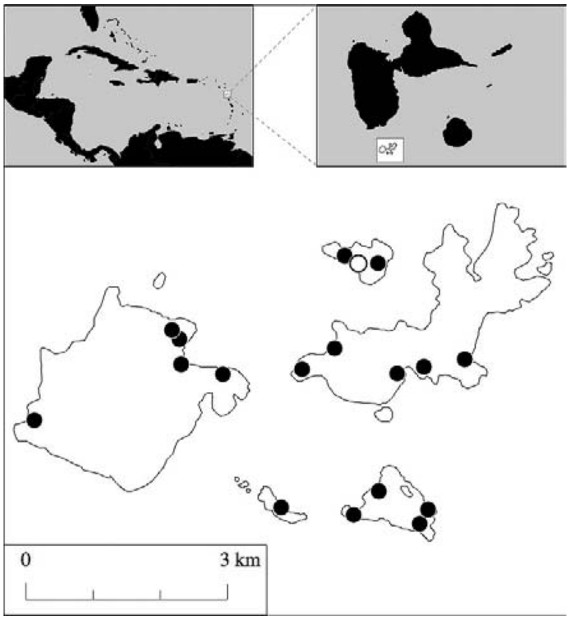


FIGURE 2. Dorsal pattern of *Sphaerodactylus phyzacinus* (from Thomas 1964).

S. phyzacinus from all races of *S. fantasticus*, they are divergent when multivariate analysis is employed. Males tend to be smaller, have fewer lamellae, and tend not to have pronounced keeling of the scales; females tend to have no dorsal stripes, tend not to be heavily keeled, and tend to have an intensely pigmented head with little red hue, a high green and low blue hue to the trunk, a strong contrast between the amount of red on some trunk scales compared to



Map. Distribution of *Sphaerodactylus phyzacinus*; the circle represents the type-locality, other localities are marked with dots (modified from Schwartz and Henderson 1991, Breuil 2002, and Thorpe et al. 2008).

others and a weak contrast in blue.

• DESCRIPTIONS. Other than the original description of Thomas (1964), detailed descriptions are in Jones (1999) and Breuil (2002). Thorpe et al. (2008) provided a table with an islet-by-islet synopsis of 14 traits comparing *S. phyzacinus* with *S. fantasticus*.

• ILLUSTRATIONS. Breuil (2002), Jones (1999, including male and female head pattern types), and Malhotra and Thorpe (1999) provided color photographs. Line drawings are in Breuil (2002) and Thomas (1964).

• DISTRIBUTION. *Sphaerodactylus phyzacinus* is found on Îlet à Cabrit, Terre-de-Bas, and Terre-de-Haut, Îles des Saintes. The range was previously illustrated by Breuil (2002), Jones (1999), Schwartz and Henderson (1991), Thomas (1964), and Thorpe et al. (2008).

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. Breuil (2002), Henderson and Powell (2009), Malhotra and Thorpe (1999), and Schwartz and Henderson (1991) summarized natural history. Jones (1999) and Thorpe et al. (2008) discussed the evolutionary history of the species, with the former suggesting elevation of what was then a subspecies of *S. fantasticus* to full species rank without doing so.

The species is included in general works, checklists, guides, and keys (some may include brief descriptions) by Kluge (1991, 1993, 1995, 2001), MacLean et al. (1977), Rösler (2000), Schwartz and Henderson (1985, 1988), and Schwartz and Thomas (1975).

• ETYMOLOGY. The specific epithet, *phyzacinus*, is from the Greek for "shy," because specimens of the type-series were difficult to collect (R. Thomas, in litt., 02.I.2009).

• COMMENT. Some additional references to this species may be included in general works (e.g. Censky and Kaiser 1999; Wermuth 1965) under *S. fantasticus*.

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